

REMARKS

This communication is full and timely response to the final Office Action dated September 7, 2011. Claims 1-6 remain pending. By this communication, claims 1, 2, and 6 are amended. Support for the amended subject matter can be found, for example, at paragraphs [0025]-[0034] of Applicants' disclosure.

Statement on Substance of Interview

The Examiner and Applicants' representative conducted an interview on November 3, 2011. The claims and the applied art were discussed with particular reference to the disclosure of Ostrup and its relation to IT systems. No agreement was reached.

Rejection under 35 U.S.C. §103

On page 3 of the Office Action, claims 1-6 stand rejected under 35 U.S.C. §103(a) for alleged unpatentability over *Ostrup* (US 20030217133) in view of *Whyman* (US 20040128313). Applicants respectfully traverse this rejection because the combination of *Ostrup* and *Whyman* fails to disclose or suggest an adapter as recited in claims 1 and 6.

Exemplary embodiments provided in the present disclosure are directed to inconsistencies that can arise from entities representing the same physical asset in various IT systems of a utility may inadvertently be assigned diverging attribute values. Consistency validating information (related to a particular physical asset of a utility) is generated based on the existence or the content of a reply to a signal sent by a consistency service (via a specific adapter and directed by [entity and IT system specific] reference information) to a specific IT system holding an entity representing said asset.

Applicants Figures 1-3 illustrate exemplary embodiments directed to “utilities”, e.g., companies tasked with distributing certain goods such as electricity, energy, or water to residents within a specified geographical range. To this end, the utilities own a very large number of physical “real-world” assets, such as components or “primary devices” that fulfill a certain function according to the operation of the utilities. This function can include switching electrical power or monitoring a process quantity. These components are generally not intelligent, in that they do not include a CPU and are not connected to a communication or computer network.

The assets or components have properties or parameters that are referred to in various IT systems of the utility. These IT systems belong to various sources or participating applications, which are directed to operational aspects (e.g. SCADA = supervisory control and data acquisition) or maintenance aspects (e.g. CMMS – computerized maintenance management systems) related to the usage or wear of the assets in distributing the above-mentioned goods. In order to represent the assets or components, a single physical asset of the utility is modeled or represented as an entity or software object in the data sets of the IT systems of the various applications, with the properties of the asset being assigned to specific attributes of the entity.

To enable a consistency service to access the actual attribute values of an entity, reference or meta-information about the entity is stored in a reference storage or database. This information comprises e.g. a local identifier in order to access the entity in the application, and an application identifier that allows the consistency service to direct any requests related to that entity to an adapter of the IT system of the application. An adapter acquires and translates the requested information from

the application via a polling mechanism and without a need for modifying the application.

Each of independent claims 1 and 6 broadly encompass various features of the exemplary embodiment discussed above.

Ostrup discloses a consistency checking mechanism that allows network operators to create their own consistency checking rules. The consistency checking rules represent best practices or desired practices, and are directed, for example, to uniqueness of identifiers, radio channel assignment, and transmit power (*Ostrup*, pgph [0006]). Configuration Management employs a Network Resource Model (NRM) to represent the actual managed telecommunication network resources as managed objects, including the object's names, attributes, and associations (pgph [0005]). The checking rules can be categorized in a look-up table having checkpoints and formulas. The checking rules are stored in memory. The consistency check rule can be scheduled to execute immediately, at the creation of a cell, at the activation of a cell, at the creation of a location area, at the import of new data to the network management system from an external management system, and an initial start of a network element or a management system (*Ostrup*, pgph [0038]). In performing a consistency check, the parameters of the defined rule are fetched from memory and passed to the rule executor that will fetch and process the value of the attributes to be checked from the relevant configuration area (pgph [0039]).

The Examiner acknowledges that *Ostrup* fails to disclose or suggest at least modeling physical assets of a utility and relies on *Whyman* in an effort to remedy this deficiency. However, Applicants believe that *Ostrup* is also deficient in that it does not disclose or suggest a plurality of IT systems and an adapter or any functionality

related to an adapter, which allows communication between the consistency service and the IT systems, as recited in the claims.

Applicants' claims 1 and 6 each recite that the adapter allows communication between the consistency service and the various IT systems of the utility. More importantly, independent claim 1 recites a method that includes, in part, "initializing an adapter of the IT system associated with the entity to be validated for consistency". The adapters are provided so that the data set of each respective IT system can be accessed even though each IT system is different and has a different data model. Therefore, because of the adapter the consistency service is able to communicate information regarding the data set between the different IT systems despite the respective data model used by each IT system.

In contrast, *Ostrup* discloses the use of one IT system, e.g., the configuration manager, which employs a single NRM data model. Because the configuration manager bases the consistency checks on a single NRM data model, the consistency checks do not involve diverging attribute values between different entities in distinct IT systems. Rather, the consistency check is performed to verify the consistency of absolute attribute values or inter-object associations as evidenced by the set of consistency check formulas described in paragraphs [0029]-[0036].

The consistency check can be scheduled to execute immediately, at the creation of a cell, at the activation of a cell, at the creation of a location area, at the import of new data to the network management system from an external management system, and an initial start of a network element or a management system. As provided therein, a cell is associated with a cellular network (pgph [0007]), and a location area can be a set of nodes to be added or included in the

network (pgph [0026]). Given the guidance provided in *Ostrup*, one of skill in the art would have understood that the values of the attricuted to be checked for consistency from the relevant configuration area (pgph [0039]), refers to eitehr planned or valid/active network configurations (pgph [0030]). These valid/active network configurations correspond to instances of/within the NRM data model of the configuration manager, and not to plural and distinct IT systems in the sense of the Thus, one of skill in the art would understand that *Ostrup* is directed to performing consistency checks on various nodes or a group of nodes in a network based on a single network model, which does not include multiple IT systems.

If the configuration area can reasonably be interpreted as an IT system as the Examiner alleges, which Applicants believe it cannot, there is no suggestion that this configuration area has a different data model than other configuration areas. More importantly, there is no use of an adapter or component that one of skill in the art would have reasonably interpreted as or being related to Applicants' claimed adapter.

Whyman discloses a data base system for managing properties and data associated with property and utility entities. While this document discloses a capability to store various data objects, there is no disclosure or suggestion that these data objects are associated with different IT systems having respective data models, as is recited in the claims. Nor does *Whyman* disclose the use of an adapter or associated functionality of an adapter as recited in the claims. There is no disclosure of or an assertion by the Examiner of a disclosure of an adapter or IT system as recited in Applicants' claims.

In summary, *Ostrup* and *Whyman* when applied individually or collectively fail to disclose or suggest every feature and/or the combination of features recited in Applicants' claims. For these reasons, a *prima facie* case of obviousness has not been established. Withdrawal of the rejection under 35 U.S.C. §103, therefore, is respectfully requested.

CONCLUSION

Based on the foregoing amendments and remarks, claims 1-6 are believed to be allowable and this application in condition for allowance. In the event any issues adverse to allowance remain and/or the Examiner believes that further prosecution would benefit from an interview, the Examiner is invited to contact Applicants' representative identified below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: December 7, 2011

By: /Shawn B. Cage/

Shawn B. Cage
Registration No. 51,522

Customer No. 21839
703 836 6620